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DEC 27 2006

Docket No.: CL-10271
Application No.: 10/813,188
Amendment Date: December 27, 2006
Reply of Office Action of: October 10, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all previous listings.

Claim 1. (Currently Amended) A flat fluorescent lamp, comprising:

a front substrate;

a back substrate having a continuous serpentine type discharge channel defined by a plurality of partitions, which are extended from both side ends of the back substrate and alternately disposed;

a pair of electrodes provided on an outer surface of any one of the front substrate and the back substrate; and

an inverter to apply power to the electrodes,

wherein each of the electrodes includes a discharge electrode and a plurality of subsidiary electrodes, each of the subsidiary electrodes being perpendicular to the discharge electrode and having a hollow part therein;

the discharge electrodes are mounted in strip shapes along both side ends of the outer surface of the any one of the front substrate and the back substrate, and

the plurality of subsidiary electrodes are mounted on the outer surface of the any one of the front substrate and the back substrate, the plurality of subsidiary electrodes being aligned with the partitions in directly overlying relation to the partitions, and the subsidiary electrodes being disposed perpendicular to the discharge electrodes, the plurality of subsidiary electrodes being alternately connected to inner edges of both the discharge electrodes so that neighboring subsidiary electrodes have different polarities;

wherein crosstalk between parallel portions of the discharge channel is inhibited.

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Docket No.: CL-10271
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Claim 2. (Previously Presented) A flat fluorescent lamp, comprising:

a front substrate;

a back substrate having a continuous serpentine type discharge channel defined by a plurality of partitions, which are extended from both side ends of the back substrate and alternately disposed;

a pair of electrodes provided on an outer surface of any one of the front substrate and the back substrate; and

an inverter to apply power to the electrodes,

wherein each of the electrodes includes a discharge electrode and a subsidiary electrode,

the discharge electrodes are mounted in strip shapes along both side ends of the outer surface of the any one of the front substrate and the back substrate,

the subsidiary electrodes are mounted on the outer surface of the any one of the front substrate and the back substrate, and each of the subsidiary electrodes has a first subsidiary electrode that is not in physical contact with any one of the discharge electrodes, the first subsidiary electrode extending parallel to at least one of the discharge electrodes; and

a plurality of second subsidiary electrodes defining a contour, the contour being aligned with the partitions, and the second subsidiary electrodes being perpendicular to the first subsidiary electrode, the second subsidiary electrodes of both the subsidiary electrodes being alternately connected to inner edges of both the first subsidiary electrodes so that neighboring electrodes have different polarities, and

the discharge electrode and the first subsidiary electrode are separately connected to the inverter.

Claim 3. (Original) The flat fluorescent lamp as defined in claim 2, wherein any one of the discharge electrodes and the first subsidiary electrode adjacent to the any one of the discharge electrodes have the same polarities.

Docket No.: CL-10271
Application No.: 10/813,188
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Claim 4. (Canceled) The flat fluorescent lamp as defined in claim 1, wherein each of the subsidiary electrodes, which are positioned to be perpendicular to the discharge electrodes, has a hollow part therein.

Claim 5. (Original) The flat fluorescent lamp as defined in claim 2, wherein each of the subsidiary electrodes, which are positioned to be perpendicular to the discharge electrodes, has a hollow part therein.

Claim 6. (Currently Amended) A backlight unit, comprising:

a flat fluorescent lamp, which includes a front substrate, a back substrate having a continuous serpentine type discharge channel defined by a plurality of partitions, which are extended from both side ends of the back substrate and alternately disposed, a pair of electrodes provided on an outer surface of any one of the front substrate and the back substrate, and an inverter to apply power to the electrodes; and

a frame having the flat fluorescent lamp therein,

wherein each of the electrodes includes a discharge electrode and a plurality of subsidiary electrodes, each of the subsidiary electrodes being perpendicular to the discharge electrodes and having a hollow part therein;

the discharge electrodes are mounted in strip shapes along both side ends of the outer surface of the any one of the front substrate and the back substrate,

the plurality of subsidiary electrodes are mounted on the outer surface of the any one of the front substrate and the back substrate in positions that directly overlie the partitions, and are disposed to be perpendicular to the discharge electrodes, the plurality of subsidiary electrodes being alternately connected to inner edges of both the discharge electrodes so that neighboring subsidiary electrodes have different polarities;

wherein crosstalk between parallel portions of the discharge channel is inhibited.

Docket No.: CL-10271
Application No.: 10/813,188
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Claim 7. (Previously Presented) A backlight unit, comprising:

a flat fluorescent lamp, which includes a front substrate, a back substrate having a continuous serpentine type discharge channel defined by a plurality of partitions, which are extended from both side ends of the back substrate and alternately disposed, a pair of electrodes provided on an outer surface of any one of the front substrate and the back substrate, and an inverter to apply power to the electrodes; and

a frame having the flat fluorescent lamp therein,

wherein each of the electrodes includes a discharge electrode and a subsidiary electrode,

the discharge electrodes are mounted in strip shapes along both side ends of the outer surface of the any one of the front substrate and the back substrate,

the subsidiary electrodes are mounted on the outer surface of the any one of the front substrate and the back substrate, and each of the subsidiary electrodes has a first subsidiary electrode disposed at a predetermined spacing from an adjacent one of the discharge electrodes while being in parallel therewith; and

a plurality of second subsidiary electrodes which are mounted in positions that are aligned with the partitions, the second subsidiary electrodes being in positions perpendicular to the first subsidiary electrode, and the second subsidiary electrodes of both the subsidiary electrodes being alternately connected to inner edges of both the first subsidiary electrodes so that neighboring electrodes have different polarities, and

the discharge electrode and the first subsidiary electrode are separately connected to the inverter.

Claim 8. (Original) The backlight unit as defined in claim 7, wherein any one of the discharge electrodes and the first subsidiary electrode adjacent to the any one of the discharge electrodes have the same polarities.

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Application No.: 10/813,188
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Claim 9. (Canceled) The backlight unit as defined in claim 6, wherein each of the subsidiary electrodes, which are positioned to be perpendicular to the discharge electrodes, has a hollow part therein.

Claim 10. (Original) The backlight unit as defined in claim 7, wherein each of the subsidiary electrodes, which are positioned to be perpendicular to the discharge electrodes, has a hollow part therein.